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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,027	07/29/2003	Martin Kreuzer	TRW(ASG)6674	7775

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EXAMINER

ROSENBERG, LAURA B

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,027	KREUZER, MARTIN	
	Examiner	Art Unit	
	Laura B. Rosenberg	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 January 2006, in which claims 14-17 were added, has been entered.

Claim Objections

2. Claim 14 is objected to because of the following informalities: "such" should be inserted in line 10 to read, "arranged spaced apart from each other *such* that said membrane meets". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 14-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

Art Unit: 3616

had possession of the claimed invention. Specifically, the "gas impermeable" feature of the second material (claim 14, line 5) is new matter because the originally filed disclosure does not provide support for this limitation.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3-8, and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 1, 14, and 17, the phrase "like a balloon" renders the claim(s) indefinite. See MPEP § 2173.05.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada (3,758,133). Okada discloses a gas bag protection device (best seen in figures 5, 6) comprising:

- Gas bag (including #3) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (including portion of #3 covered by #8) in outer wall

Art Unit: 3616

- Membrane (including #8) made of an extensible, second material (for example, film) fastened to outer wall and covering the outflow opening when gas bag is not fully inflated (best seen in figure 5)
- First material and membrane defining an inflatable volume of the gas bag (best seen in figures 5, 6) that varies depending upon the load applied to the gas bag (for example, inflatable volume changes when a large load is applied and the membrane is cut)
- Device (including #9) outside gas bag that serves to destroy membrane (for example, can be seen destroying membrane in figure 6)
- Gas bag and device spaced far enough apart that membrane meets device only when a predetermined internal pressure of the gas bag has been reached (best seen in figure 6)
- Membrane in a folded gas bag state arranged inside the gas bag (best seen in figure 5) and turned outwards through the outlet opening on inflation of the gas bag (best seen in figure 6)
- Outflow opening is covered only by the membrane (best seen in figure 5)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3616

10. Claims 1, 3-8, and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (3,758,133) in view of Braunschadel (6,056,318). Okada discloses a gas bag protection device (best seen in figures 5, 6) comprising:

- Gas bag (including #3) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric) and defining an inflatable volume (best seen in figures 5, 6)
- Outflow opening (including portion of #3 covered by #8) in outer wall
- Membrane (including #8) made of an extensible, second material (for example, film) fastened to outer wall and covering the outflow opening when gas bag is not fully inflated (best seen in figure 5)
- Device (including #9) outside gas bag that serves to destroy membrane (for example, can be seen destroying membrane in figure 6)
- Gas bag and device spaced far enough apart that membrane meets device only when a predetermined internal pressure of the gas bag has been reached (best seen in figure 6)
- Membrane in a folded gas bag state arranged inside the gas bag (best seen in figure 5) and turned outwards through the outlet opening on inflation of the gas bag (best seen in figure 6)
- In a destroyed state, membrane defines an effective outflow cross-section (best seen in figure 6)
- Device (including #9) provided on an "inner face" of a steering wheel (steering wheel not labeled, but is positioned in front of driver as seen in figures 1, 2)

Art Unit: 3616

- Outflow opening is covered only by the membrane (best seen in figure 5)
- Gas bag remains “rearward” from the device when the membrane is destroyed by the device (best seen in figure 6)
- Membrane defines a recess (for example, recess formed by portion of membrane #8 that is not overlapped by gas bag #3; best seen in figure 5) that extends inwardly of the gas bag from the outlet opening prior to inflation of the gas bag (recess extends inwardly at all times, including prior to inflation, except when membrane is pierced by device #9)

Okada does not disclose the membrane bulging toward an exterior before reaching the device, the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag, inflatable volume defined by the first material and the membrane increasing when the membrane bulges forward toward the exterior, or the membrane being made of an elastic material.

Braunschadel teaches a gas bag protection device (figures 1-3) comprising:

- Gas bag (including #1) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (including #2) in outer wall (best seen in figure 1)
- Membrane (including #4) made of an extensible, second material (for example, elastic fabric) fastened to outer wall and covering outflow opening when gas bag is not fully inflated (shown in exploded view in figure 1)

- Membrane in a folded gas bag state arranged inside the gas bag and turned outwards through the outlet opening on inflation of the gas bag, bulging forward toward an exterior "like a balloon" (column 2, lines 42-48)
- In a "destroyed" state, membrane defines an effective outflow cross-section and provides for an adjustment in size of the outflow cross-section as a function of an internal pressure of the gas bag (column 2, lines 42-61)
- First material and membrane defining an inflatable volume of the gas bag that increases when the membrane bulges forward toward the exterior (due to the membrane's elasticity)

It would have been obvious to one skilled in the art at the time that the invention was made to modify the gas bag protection device of Okada such that it comprised the membrane bulging toward an exterior before reaching the device, the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag, the inflatable volume defined by the first material and the membrane increasing when the membrane bulges forward toward the exterior, and the membrane being made of an elastic material as claimed in view of the teachings of Braunschadel so as to safely accommodate a variety of vehicle occupants who impart different loads when impacting the gas bag in a vehicle collision (Braunschadel: column 1, line 60-column 2, line 22).

With respect to the phrase "gas impermeable", whether the second material is permeable or gas impermeable does not appear to affect the invention overall. Further, Braunschadel teaches the second material (for example, elastic fabric) of membrane

Art Unit: 3616

(including #4) being less gas permeable than other materials used in the gas bag (for example, fabric layer #4 is less gas permeable than fabric layer #3; column 3, lines 35-41). Thus, the permeability or impermeability of the second material of the membrane would have been an obvious modification.

Response to Arguments

11. Applicant's arguments filed 11 January 2006 have been fully considered but they are not persuasive.

In regards to pages 7-11 and claims 1, 14, and 17, since the Okada invention can be modified by the Braunschadel membrane and vent assembly, and the Braunschadel reference provides motivation for this modification, the prior art rejection is proper.

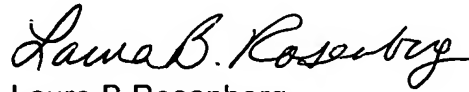
In regards to page 9 and claim 9, "extensible" is defined by Merriam-Webster as "capable of being extended", and the membrane of Okada meets this limitation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

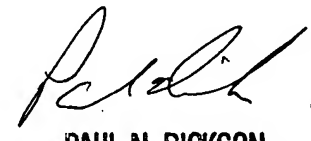
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura B Rosenberg
Patent Examiner
Art Unit 3616

LBR

 3/17/06
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